

Turkey-based COVID-19 publications in pediatrics: A bibliographic analysis

Turkey-based pediatric COVID-19 publications

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Abstract

Aim: The aim of this research is to analyze the pediatric COVID-19 literature published in Turkey and to guide future research.

Material and Methods: Between 11.03.2010 and 11.12.2022, the Web of Science (WoS) All Databases collection was searched for publications related to COVID-19 and pediatric patients. The keywords used during this search were coronavirus-19, COVID-19, SARS-CoV-2, novel coronavirus, 2019-nCoV, pandemic, and/or pediatric, pediatric, children, child. After this search, the selected publications were scanned one by one to determine whether they were suitable for the present study. Authors, organizations, journals, document types, distribution of publications by years (months), most used keywords were obtained from the Web of Science (WoS) All Databases collection. Descriptive analyzes were made from all these obtained data.

Results: The number of COVID-19 publications originating from Turkey in the field of pediatrics was determined as 375. 48.2% of all publications were published in 2022. These 375 publications were published in 167 different journals. In these publications, the most active author, journal and organization were Yasemin Ozsurekci, Turkish Archives of Pediatrics and University of Health Sciences, Turkey, respectively. The most commonly used keywords were "child, patient, pandemic, SARS-CoV and vaccine. The most active document types were research articles (295 (78.6%)), editorial materials (15 (4.0%)), letters (43 (11.5%)) and review articles (22 (5.9%)).

Discussion: We analyzed all articles about COVID-19 from Turkey in the field of pediatrics published so far in the WoS Databases collection. It is obvious that a large literature has emerged in our country on pediatric patients, although not as much as in adults. The long-term adverse effects of the pandemic on pediatric practice and especially on children will need to be evaluated in more detail in future research.

Keywords

COVID-19, Pediatric, Turkey

DOI: 10.4328/ACAM.21555 Received: 2022-12-19 Accepted: 2023-02-02 Published Online: 2023-02-09 Printed: 2023-05-01 Ann Clin Anal Med 2023;14(5):414-417

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Introduction

On December 30, 2019, a series of pneumonia cases of unknown origin were reported in Wuhan, Hubei province of China [1]. The virus isolated on January 7, 2020 was found to be the new coronavirus (2019-nCoV / SARS-CoV-2) [2]. On March 11, 2020, the World Health Organization (WHO) declared COVID-19 a pandemic (available at: https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200311-sitrep-51-covid-19.pdf?sfvrsn=1ba62e57_10). The detection of the first COVID-19 case in Turkey coincided with March 11, 2020. With 144,099,374 confirmed cases and 3,061,912 deaths worldwide, COVID-19 affected 223 countries (available at: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>).

Children are less likely to be infected with SARS-CoV-2 than adults, and most pediatric cases are asymptomatic or clinically mild [3]. In children with COVID-19, supportive treatment is usually sufficient and hospitalization is often not required [6]. In pediatric patients, COVID-19 typically presents with mild symptoms such as cough, fever, sore throat and diarrhea. However, severe clinical symptoms such as hyperinflammatory syndrome, increased severity of childhood-onset type 1 diabetes, and multisystem inflammatory syndrome can be seen in some children, especially those with underlying diseases [5-8]. Although COVID-19 vaccines have been determined to be safe for adults, trials are ongoing to determine whether they are safe for children.

This pandemic has sparked a flood of medical literature on various aspects of COVID-19. There are more than 100,000 articles on PubMed about COVID-19. As in all categories, new articles continue to be published every day in all areas of pediatrics. In the present study, we aimed to analyze publications related to pediatric COVID-19 originating from Turkey with a bibliometric perspective and for guiding future research.

Material and Methods

The present study is a bibliometric citation analysis study. The WoS All Databases collection (Philadelphia, Pennsylvania, USA) was used in this bibliometric citation study. Between 11.03.2010 and 11.12.2022, the Web of Science (WoS) All Databases collection was searched for publications related to COVID-19 and pediatric patients. The keywords used during this search were coronavirus-19, COVID-19, SARS-CoV-2, novel coronavirus, 2019-nCoV, pandemic, and/or paediatric, pediatric, children, child. These keywords were scanned in the title, abstract and keywords in the Web of Science (WoS) All Databases collection in order to identify relevant publications. After this search, the selected publications were scanned one by one to determine whether they were suitable for the present study. Publications not related to pediatric COVID-19 were excluded from the study. Articles co-authored by Turkish and non-Turkish authors were included in the present study if the responsible author was from Turkey. In addition, we excluded publications that did not include a pediatrician in the list of authors. The authors, organizations, journals, document types, distribution of publications by years (months), the most used keywords were obtained from the Web of Science (WoS) All Databases collection. Graphical mapping of the keywords via VOSviewer software was done to assess the current research

focus during the pandemic. Also, MEDLINE/PubMed (the US National Library of Medicine database) and Google Scholar were used to add missing data when necessary. Descriptive analyzes were made from all these obtained data.

Results

In total, 375 pediatric COVID-19 publications originating from Turkey were identified. Of these, 36 (9.6%) were published in 2020, 158 (42.2%) in 2021 and 181 (48.2%) in 2022 (Figure 1). Considering the monthly distribution of publications, the highest number of publications belongs to January 2022 (28, 7.4%).

The top ten most active authors and organizations publishing on pediatric COVID-19 in Turkey are listed in Table 1. The author with the most publications was Yasemin Ozsurekci from Hacettepe University [22 (5.8%) publications and 181 citations]. The organization with the highest number of publications was University of Health Sciences Turkey [80 (21.3%) publications and 277 citations].

The top ten most active Journals of pediatric COVID-19 Turkey publications are listed in Table 2. In total, 375 publications that we have identified have been published in 167 different journals. The journal with the highest number of publications (25 [6.6%]) and citations (73) was Turkish Archives of Pediatrics. The most active document types were research articles 295 (78.9%), editorial materials 15 (4%), letters 43 (11.5%) and review articles 22 (5.9%).

Most used keywords in pediatric COVID-19 publications originating from Turkey are shown in Figure 2. The most commonly used keywords were "child, patient, pandemic, SARS-CoV and vaccine. The most active document types were research articles (295 (78.6%)), editorial materials (15 (4.0%)), letters (43 (11.5%)) and review articles (22 (5.9%)).

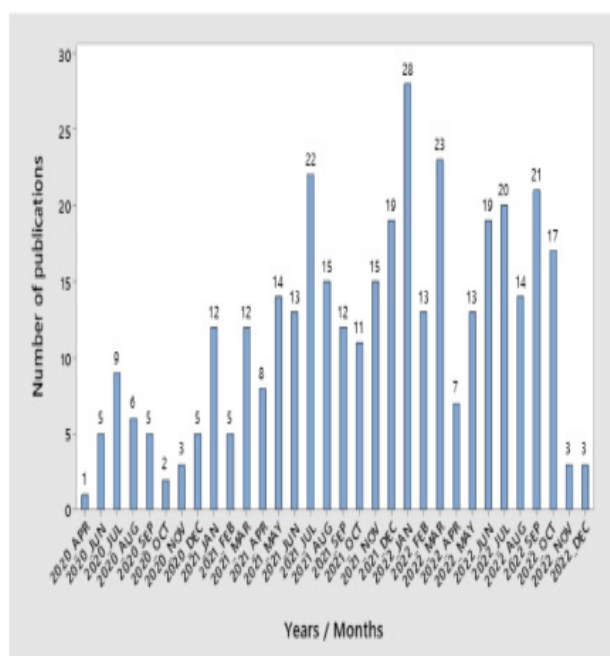


Figure 1. Distribution of publications on pediatric COVID-19 in Turkey by years, months.

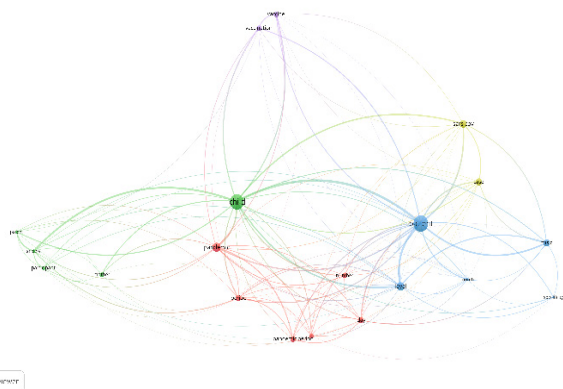


Figure 2. Most used keywords in publications on pediatric COVID-19 originating from Turkey.

Table 1. Top ten most active authors and organizations publishing articles on pediatric COVID-19 in Turkey.

	Number of publications (n, %)	Count of citations (n)
Authors		
Ozsurekci Y	22 (5.8%)	181
Oygar PD	14 (3.7%)	120
Ozen S	13 (3.4%)	150
Aykac K	11 (2.9%)	125
Cengiz AB	11 (2.9%)	112
Ceyhan M	11 (2.9%)	125
Sahin A	11 (2.9%)	28
Ciftdogan DY	11 (2.9%)	38
Yayla BCC	11 (2.9%)	118
Gurlevik SL	11 (2.9%)	84
Organizations		
University of Health Sciences Turkey	80 (21.3%)	277
Hacettepe University	49 (13.0%)	323
City Hospital Ankara	29 (7.7%)	170
Istanbul University - Cerrahpasa	28 (7.4%)	135
Istanbul University	24 (6.4%)	125
Yildirim Beyazit University	20 (5.3%)	87
Ege Beyazit University	19 (5.0%)	64
Gazi University	18 (4.8%)	191
Marmara University	18 (4.8%)	57
Izmir Tepecik Training & Research Hospital	17 (4.5%)	44

Table 2. Top ten most active Journals publishing articles on pediatric COVID-19 in Turkey.

	Number of publications (n, %)	Count of citations (n)
Journals , ISSN / eISSN		
Turkish Archives of Pediatrics, 2757-6256	25 (6.6%)	73
Pediatric Pulmonology, 8755-6863 / 1099-0496	20 (5.3%)	164
Medicine, 0025-7974 / 1536-5964	20 (5.3%)	0
Journal of Pediatric Infectious Diseases, 1305-7707 / 1305-7693	15 (4%)	6
European Journal of Pediatrics, 0340-6199 / 1432-1076	11 (2.9%)	57
Journal of Tropical Pediatrics, 0142-6338 / 1465-3664	11 (2.9%)	5
Journal of Paediatrics And Child Health, 1034-4810 / 1440-1754	10 (2.6%)	23
Pediatric Infectious Disease Journal, 0891-3668 / 1532-0987	9 (2.4%)	25
Pediatrics International, 1328-8067 / 1442-200X	9 (2.4%)	21
Turkish Journal of Pediatrics, 0041-4301	8 (2.1%)	3

Discussion

The COVID-19 pandemic was an extraordinary situation for scientists as well as for the whole world. A situation similar to the confusion experienced by health systems all over the world has also raised questions among scientists, scientific journals, editors and authors. In fact, this confusion has spawned a great deal of literature. In this whole process, published articles, retracted articles and changing diagnosis, treatment and prevention strategies actually reveal the chaos even more clearly. At the moment, scientists seem to have the opportunity to look behind them and evaluate more clearly what is happening. In our article, we analyzed the COVID-19 publications originating from Turkey. Bibliometric analyzes reveal productivity, impact, and trends. These data not only indicate a scientific trend, but also affect the future scientific process and course. It will guide enthusiastic scientists who do not know or are wondering what topics they should research in a chaotic process like the pandemic. At the same time, using data obtained from bibliometric analyzes, it is possible to follow the relevant centers and authors and benefit from their experience. With the emergence of COVID-19 in the Chinese province of Wuhan towards the end of 2009 and the WHO declared a pandemic in March 2020, the world has entered into a chaos. At the beginning of the pandemic, especially with the pediatric population being less affected, adequate and accurate recommendations for children did not emerge. It has evolved into a period in which the pediatric population is affected and serious clinical manifestations have emerged [9,10]. This situation also directly affected the distribution of pediatric COVID-19 publications by months/years [11,12]. In our analysis, it is seen that the publications have increased over the years. In the bibliometric analysis published by Hu et al., it is stated that the USA is the country with the highest number of pediatric COVID-19 publications in the world [12]. Turkey is in fifth place in this study. In the present study, it is seen that the majority of pediatric COVID-19 publications in Turkey are affiliated with the University of Health Sciences Turkey. In this case, we consider the main factor to be the University of Health Sciences Turkey's many affiliated education research centers and the high number of academics that have emerged as a result. In this list, it is seen that other well-established universities of Turkey such as Hacettepe University and Istanbul University come after the University of Health Sciences Turkey.

Perhaps one of the most interesting data in the present study is that a young and new hospital such as City Hospital Ankara, which started its operations in February 2019, ranked third in the “Most active organization” list. Ankara We think that the reason for this situation is the strengthening of the academic staff of the city hospitals with the effect of the health policies implemented in Turkey.

In the bibliographic analysis of pediatric COVID-19 studies, it was stated that the majority of publications were from the USA [12,13]. This result can be attributed to the fact that the USA is the country most affected by the pandemic and has strong data management and academic systems. Another noteworthy country in this ranking is China. We think that the main reason why China is at the top of the list is its population size. Similarly, in our study, all university/education research hospitals/hospitals in the “Top ten most active organisation” list are located in the 3 largest cities in Turkey by population. There has been and continues to be a wide range of publications on COVID-19 in both adults and children. New articles are published almost every day as new data and experiences emerge. Evaluating the quality and content of publications as a result of bibliometric analyzes is of vital importance in terms of assisting future studies.

Conclusion

In the present study, pediatric COVID-19 publications with Turkey margins in the WoS database were analyzed and we believe that it is necessary to evaluate the impact of the pandemic on pediatric publications from a long-term and more comprehensive perspective.

Scientific Responsibility Statement

The authors declare that they are responsible for the article's scientific content including study design, data collection, analysis and interpretation, writing, some of the main line, or all of the preparation and scientific review of the contents and approval of the final version of the article.

Animal and human rights statement

All procedures performed in this study were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. No animal or human studies were carried out by the authors for this article.

Funding: None

Conflict of interest

None of the authors received any type of financial support that could be considered potential conflict of interest regarding the manuscript or its submission.

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How to cite this article:

Fatma Sargin. Turkey-based COVID-19 publications in pediatrics: A bibliographic analysis. *Ann Clin Anal Med* 2023;14(5):414-417